

Claims

1. An apparatus for use with a container of liquid that is suspended from an aircraft flying over a ground target area, the container having an outlet through which the liquid is dropped from the container, said apparatus comprising:

a diffuser configured to diffuse the liquid exiting the container outlet horizontally outward beyond the container into the air above the ground target area, whereby the liquid is diffused over a correspondingly wide area.

2. The apparatus of claim 1 wherein said diffuser has a diffuser inlet for receiving the liquid and diffuser outlets for discharging the liquid into the air, said diffuser outlets being spaced horizontally from each other.

3. The apparatus of claim 2 wherein said diffuser comprises a manifold communicating said diffuser inlet with said diffuser outlets.

4. The apparatus of claim 3 wherein said manifold has rigid hydraulic lines extending from said diffuser inlet, and also has flexible hydraulic lines extending from said rigid lines to said diffuser outlets.

5. The apparatus of claim 4 further comprising buoyant structures configured to maintain said diffuser outlets above the container when the container is submerged in a body of liquid.

6. The apparatus of claim 1 wherein said diffuser is configured to diffuse the liquid by allowing the liquid to fall from said diffuser solely through the force of gravity.

7. The apparatus of claim 2 wherein said diffuser further comprises a hydraulic line having first and second ends, said first end being configured to be connected to the container outlet, and said second end being configured to be connected to a second aircraft, and wherein said diffuser outlets are spaced apart along said hydraulic line.

8. An apparatus for use with a container of fire extinguishing liquid that is suspended from an aircraft flying over a forest fire, the container having an outlet through which the liquid is dropped from the container, said apparatus comprising:

a diffuser configured to diffuse the liquid exiting the container outlet horizontally outward beyond the container into the air above the fire, whereby the liquid is diffused over a correspondingly wide area.

9. The apparatus of claim 8 wherein said diffuser has a diffuser inlet for receiving the liquid and diffuser outlets for discharging the liquid into the air, said diffuser outlets being spaced horizontally from each other.

10. The apparatus of claim 9 wherein said diffuser comprises a manifold communicating said diffuser inlet with said diffuser outlets.

11. The apparatus of claim 10 wherein said manifold has rigid hydraulic lines extending from said diffuser inlet, and also has flexible hydraulic lines extending from said rigid lines to said diffuser outlets.

12. The apparatus of claim 11 further comprising buoyant structures configured to maintain said diffuser outlets above the container when the container is submerged in a body of liquid.

13. The apparatus of claim 8 wherein said diffuser is configured to diffuse the liquid by allowing the liquid to fall from said diffuser solely through the force of gravity.

14. The apparatus of claim 9 wherein said diffuser further comprises a hydraulic line having first and second ends, said first end being configured to be connected to the container outlet, and said second end being configured to be connected to a second aircraft, and wherein said diffuser outlets are spaced apart along said hydraulic line.